



**UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration**

*National Marine Fisheries Service*

*P.O. Box 21668*

*Juneau, Alaska 99802-1668*

January 23, 2003

Burke Wick, PE  
Cooper Lake Relicensing Project Manager  
Chugach Electric Association, Inc.  
5601 Minnesota Drive  
P.O. Box 196300  
Anchorage, Alaska 99519-6300

Dear Burke,

The National Marine Fisheries Service (NMFS) has reviewed the Cooper Lake Hydroelectric Project draft study plans. The following comments are provided only for those studies that apply to resources under the legal jurisdiction of NMFS.

Evaluation of Effects of Project Operation on Kenai River Fish Habitat

The key component of this study plan is the Kenai River Hydraulic Modeling. Project impacts on river flows are a point of disagreement among many participants in the relicensing process. An accurate and easily understood model will help everyone understand the impact of this project on Kenai River flows during all times of the year. Agency representatives should be briefed periodically on the progress of this project.

Porcupine Creek Fish Resources Study

During preliminary investigations on Porcupine Creek, a perched culvert that blocks fish passage was discovered about 150 feet upstream from the mouth of the creek at Kenai Lake. An additional 0.4 miles of potential fish habitat is present above the perched culvert. The focal point of this study is to determine the habitat value of the lower 0.4 miles of stream that is blocked off by the perched culvert.

The outcome of this study will be a determination of habitat value for the inaccessible stream segment. If, as we suspect, the study confirms that this reach of the stream includes valuable habitat, NMFS and other resource agencies will seek



to have Chugach Electric fix the perched culvert as part of the mitigation package associated with relicensing. Chugach's interests might be better served if they consent to repair the culvert now instead of spending money on a study that will confirm existing evidence the culvert needs to be repaired.

#### Stream Flow and Water Quality Study

The primary use of data collected during this project will be to support efforts to model a range of stream flows and temperatures in Cooper Creek to describe baseline conditions and evaluate potential project impacts and potential mitigation measures pertinent to relicensing. This study is well designed and NMFS has no comment on this draft study plan.

#### Cooper Creek Fish Resources Study

The fish resource study will be integrated with other studies to yield a description of existing conditions within the stream and will provide a baseline against which future conditions can be compared. The resident and rearing sampling methods are well described except for timing of sampling. Late summer (Aug) or early fall (Sept) is probably the best time to sample for rearing juveniles. NMFS has no other comments on this plan.

#### Cooper Creek Instream Flow Study

The instream flow study is a complex modeling exercise utilizing a variety of modeling methodologies to predict numerous physical parameters in Cooper Creek. The technical review team should be an integral component of this study. Periodic meetings and updates should include the team. This will allow issues to be discussed by all and decisions can be made with the input of the team. NMFS has no detailed comments on this plan.

#### Cooper Creek Aquatic Habitat Analysis

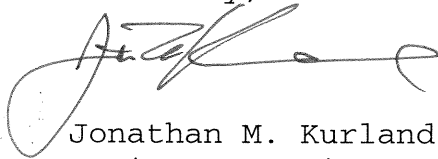
The methodology for the aquatic habitat analysis study was field tested this fall. Continued use of this methodology is widely supported among the reviewing agencies. NMFS has no detailed comments on this plan.

## Hydrology Study

The hydrology study is a very important component for assessing project impacts from the past and potentially into the future. Development of the Reservoir Operation Simulation Model could reveal a method for improving project operational efficiency. A thorough evaluation of a Stetson Creek diversion is critical for the relicensing process. The key to resolving relicensing disputes between Chugach and the reviewing agencies may lie in the results of this study. NMFS has no detailed comments on this plan.

We have no comments on any of the other study plans. All of the study plans were well written and collectively form a good comprehensive package of studies. We appreciate the opportunity to review all of the study plans and look forward to continued participation in the Cooper Lake relicensing process. Please contact Larry Peltz, 271-1332 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jonathan M. Kurland', with a large, stylized flourish at the end.

Jonathan M. Kurland  
Assistant Regional Administrator  
for Habitat Conservation